



## SEETHALAKSHMI RAMASWAMI COLLEGE

(Autonomous)

Affiliated to Bharathidasan University  
Tiruchirappalli

Accredited with A+ by NAAC (4<sup>th</sup> Cycle)



**B.Sc., Mathematics**  
**CBCS - OBE Curriculum Structure**  
(For students admitted from 2024 onwards)

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/ EXT	CIA	SE	TOTAL	
<b>I</b>	I	Language - I		Course – I	6	3	EXT	25	75	100	
	II	English - I		Course – I	6	3	EXT	25	75	100	
	III	Core Course - I		Calculus	5	5	EXT	25	75	100	
	III	Core Course - II		Theory of Equations and Vector Analysis	5	5	EXT	25	75	100	
	III	First Allied Course - I		Offered by the Department of Commerce/Physics	4	3	EXT	25	75	100	
	III	First Allied Practical		<b>Practical-I:</b> Offered by the Department of Commerce/Physics	2	-	INT	-	-	-	
	IV	VBE		Value Based Education	2	2	EXT	25	75	100	
	<b>TOTAL</b>					<b>30</b>	<b>21</b>				<b>600</b>
			EXTRA CREDIT COURSE		Communicative and Functional English offered by Department of English <b>-(MANDATORY)</b>	2	2	INT	25	75	100

<b>II</b>	I	Language - II		Course – II	6	3	EXT	25	75	100
	II	English - II		Course – II	6	3	EXT	25	75	100
	III	Core Course - III		Analytical Geometry of Three Dimensions and Trigonometry	5	5	EXT	25	75	100
	III	Core Course - IV		Numerical Methods	5	5	EXT	25	75	100
	III	First Allied Course - II		Offered by the Department of Commerce/Physics	4	3	EXT	25	75	100
	III	First Allied Practical		<b>Practical-I:</b> Offered by the Department of Commerce/Physics	2	3	INT	40	60	100
	IV	EVS		Environmental Studies	2	2	EXT	25	75	100
	<b>TOTAL</b>					<b>30</b>	<b>24</b>			

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT	
	I	Language - III		Course – III	6	3	EXT	25	75	100	
	II	English - III		Course – III	6	3	EXT	25	75	100	
	III	Core Course - V		Modern Algebra-I	5	5	EXT	25	75	100	
	III	Core Course - VI		Programming in C	5	5	EXT	25	75	100	
	<b>III</b>	III	Second Allied Course - I		Mathematical Statistics-I	4	3	EXT	25	75	100
	IV	NME - I		Offered by other Departments	2	2	EXT	25	75	100	
	IV	SBE –I		Practical:MATLAB	2	2	INT	40	60	100	
<b>TOTAL</b>					<b>30</b>	<b>23</b>				<b>700</b>	
		EXTRA CREDIT COURSE		<b>Internship – I - (II Semester vacation) Online/Offline Certificate, Report &amp; Photo-(MANDATORY)</b>	-	1	INT	-	-	100	
				Community Outreach Activity (II Semester vacation – <b>Report, Photo &amp; Feedback</b> )– <b>(OPTIONAL)</b>	-	1	INT	-	-	100	

IV	I	Language - IV		Course – IV	6	3	EXT	25	75	100	
	II	English - IV		Course – IV	6	3	EXT	25	75	100	
	III	Core Course -VII		Modern Algebra–II	6	5	EXT	25	75	100	
	III	Second Allied Course - II		Mathematical Statistics–II	6	4	EXT	25	75	100	
	III	Second Allied Practical		Practical:Mathematical Statistics	2	2	INT	40	60	100	
	IV	NME - II		Offered by other departments	2	2	EXT	25	75	100	
	IV	SBE – II		Practical:Excel Lab for Mathematical Statistics	2	2	INT	40	60	100	
					<b>TOTAL</b>	<b>30</b>	<b>21</b>				<b>700</b>
			EXTRA CREDIT COURSE		Certificate Course(IKS) : Basic Concepts of Mathematics <b>Offered by other Departments (beyond class hours) (MANDATORY)</b>	2	2	INT	25	75	100
					Office Automation - <b>(MANDATORY)</b>	2	2	INT	25	75	100
				<b>Internship – II</b> (III Semester vacation) - <b>Online/Offline Certificate, Report &amp; Photo – (OPTIONAL)</b>	-	1	INT	-	-	100	

SEM	PART	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/ EXT	CIA	SE	TOT
V	III	Core Course - VIII		Real Analysis	7	5	EXT	25	75	100
	III	Core Course - IX		Statics	7	5	EXT	25	75	100
	III	Core Course – X		Differential Equations and Fourier Series	7	5	EXT	25	75	100
	III	MBE - I		Graph Theory	5	4	EXT	25	75	100
	IV	SBE – III		Practical: Typesetting in LATEX	2	2	INT	40	60	100
	IV	SSD		Soft Skill Development	2	2	INT	25	75	100
				<b>TOTAL</b>	<b>30</b>	<b>23</b>				<b>600</b>
				Value Added Course : Mathematics For Competitive Examinations <b>Offered to the same department (beyond class Hrs.)-(MANDATORY)</b>	2	2	INT	25	75	100
				Web Designing - <b>(MANDATORY)</b>	2	2	INT	25	75	100
				<b>Internship – III</b> (IV Semester vacation) – <b>Online/Offline Certificate, Report &amp;Photo– (OPTIONAL)</b>	-	1	INT	-	-	100
			Online Course(MOOC/ Swayam/NPTEL) – <b>Before V Semester – (OPTIONAL)</b>	-	2	INT	-	-	100	
		EXTRA CREDIT COURSE								

VI	III	Core Course - XI		Sequences and Series	6	5	EXT	25	75	100
	III	Core Course - XII		Complex Analysis	5	5	EXT	25	75	100
	III	Core Course – XIII		Dynamics	5	5	EXT	25	75	100
	III	MBE- II		Operations Research	5	4	EXT	25	75	100
	III	MBE - III		Number Theory	5	4	EXT	25	75	100
	III	Project		Group project	3	3	EXT	20	80	100
	V	GS		Gender Studies	1	1	INT	25	75	100
	V	Extension		Extension Activities (NSS/NCC/YRC/Sports and Exnora)	-	1	INT	--	--	100
	<b>TOTAL</b>					<b>30</b>	<b>28</b>			
<b>GRAND TOTAL</b>					<b>180</b>	<b>140</b>				<b>4100</b>
		EXTRA CREDIT COURSE		Capacity Building for Enhancing Professional Skills - <b>Offered by the Department- (MANDATORY)</b>	2	2	INT	-	-	100
		EXTRA CREDIT COURSE		Internet Concepts - <b>(MANDATORY)</b>	2	2	INT	25	75	100

**NME OFFERED BY THE DEPARTMENT TO OTHER DEPARTMENT STUDENTS**

SEM	PART	COURSE		COURSE TITLE	HRS	CRD	EXT/	CIA	SE	TOTAL
							INT			
III	IV	NME - I		General Skills in Mathematics-I	2	2	EXT	25	75	100
IV	IV	NME - II		General Skills in Mathematics-II	2	2	EXT	25	75	100

**Allied Offered by the Department to other Department Students-Commerce**

SEM	PART	COURSE		COURSE TITLE	HRS	CRD	EXT/INT	CIA	SE	TOTAL
I	III	First Allied course - I		Business Mathematics	4	3	EXT	25	75	100
I	III	First Allied Practical		Practical:Mathematics for commerce	2	-	-	-	-	-
II	III	First Allied course - II		Business Statistics	4	3	EXT	25	75	100
II	III	First Allied Practical		Practical:Mathematics for commerce	2	3	INT	40	60	100

**Allied Offered by the Department to other Department Students-Chemistry and Physics**

SEM	PART	COURSE		COURSE TITLE	HRS	CRD	EXT/	CIA	SE	TOTAL
							INT			
III	III	Second Allied course - I		Allied Mathematics-I	4	3	EXT	25	75	100
III	III	Second Allied Practical		Practical:Mathematics for Chemistry and Physics	2	-	-	-	-	-
IV	III	Second Allied course - II		Allied Mathematics-II	4	3	EXT	25	75	100
IV	III	Second Allied Practical		Practical:Mathematics for Chemistry and Physics	2	3	INT	40	60	100

**Allied Offered by the Department to other Department Students-Computer Science Both Aided and SF**

SEM	PART	COURSE	COURSE TITLE	HRS	CRD	EXT/ INT	CIA	SE	TOTAL
III	III	Second Allied course - I	Numerical Methods	4	3	EXT	25	75	100
III	III	Second Allied Practical	Practical: Mathematics for Computer Science	2	-	-	-	-	-
IV	III	Second Allied course - II	Operations Research	4	3	EXT	25	75	100
IV	III	Second Allied Practical	Practical: Mathematics for Computer Science	2	3	INT	40	60	100

**MAJOR BASED ELECTIVE**

SEM	PART	COURSE	COURSE TITLE	HRS	CRD	EXT /INT	CIA	SE	TOTAL
V	III	MBE -I	<b>Graph Theory</b> Discrete Mathematics	5	4	EXT	25	75	100
VI	III	MBE - II	<b>Operations Research</b> Astronomy	5	4	EXT	25	75	100
VI	III	MBE -III	<b>Number Theory</b> Mathematical Modeling	5	4	EXT	25	75	100



<b>SKILL BASED ELECTIVE</b>									
<b>SEM</b>	<b>PART</b>	<b>COURSE</b>	<b>COURSE TITLE</b>	<b>HRS</b>	<b>CRD</b>	<b>EXT /INT</b>	<b>CIA</b>	<b>SE</b>	<b>TOTAL</b>
III	IV	SBE -I	Practical: <b>MATLAB</b> A Practical Introduction to SPSS	2	2	INT	40	60	100
IV	IV	SBE -II	Practical: <b>Excel Lab for Mathematical Statistics</b> R-Programming	2	2	INT	40	60	100
V	IV	SBE -III	Practical: <b>Typesetting in LATEX</b> Python Programming	2	2	INT	40	60	100

<b>NON MAJOR ELECTIVE COURSES OFFERED TO OTHER DEPARTMENTS</b>			
<b>SEM</b>	<b>COURSE</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>
III	I		General Skills in Mathematics-I
IV	II		General Skills in Mathematics-II

<b>VALUE ADDED COURSE</b> Extra Credit Course for Skill Development			
<b>SEM</b>	<b>COURSE</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>
V	I		Mathematics For Competitive Examinations

<b>CERTIFICATE COURSE OFFERED TO OTHER DEPARTMENTS</b> Extra Credit Course for Skill Development			
<b>SEM</b>	<b>COURSE</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>
IV	I		Basic Concepts of Mathematics

**SEETHALAKSHMI RAMASWAMI COLLEGE (Autonomous)**

**Affiliated to Bharathidasan University**

**TIRUCHIRAPPALLI – 620 002**

*Accredited with A+ by NAAC(4<sup>th</sup> cycle)*

**B.A./B.Sc. /B.Com./B.B.A./B.C.A. (CBCS System)**

**(For Students admitted from June 2024 onwards)**

<b>Subject</b>	<b>Number of Courses</b>	<b>Hours</b>	<b>Credit</b>
<b>Language</b>	4	24	12
<b>English</b>	4	24	12
<b>Core Course</b> Science - (9Theory & 4 Practical) Arts & Humanities –(13 Theory) Mathematics and Commerce –(12Theory & 1 Practical)	13	73	65
<b>Allied Course</b> Science - (4Theory & 2 Practical) Arts & Humanities –(6 Theory) Mathematics and Commerce –(5 Theory & 1 Practical)	6	24	18
<b>Major Based Elective</b>	3	15	12
<b>Skill Based Course</b>	3	6	6
<b>Non Major Elective</b>	2	4	4
<b>Value Based Education</b>	1	2	2
<b>Environmental Studies</b>	1	2	2
<b>Soft Skill Development</b>	1	2	2
<b>Gender Studies</b>	1	1	1
<b>Extension Activities</b>	1	-	1
<b>Group Project</b>	1	3	3
<b>Total</b>	<b>41</b>	<b>180</b>	<b>140</b>

**B.Sc., Mathematics****(CBCS System)****(For Students admitted from June 2024 onwards)****EXTRACREDIT COURSES FOR SKILL DEVELOPMENT\***

Subject	Common/Subject Specific	Number of Courses	Credit
**Office Automation(MANDATORY)	Common to all	1	2
**Web Designing(MANDATORY)	Common to all	1	2
**Internet Concepts(MANDATORY)	Common to all	1	2
**Online Course(MOOC/SWAYAM/NPTEL)(OPTIONAL)	Subject Specific	1	2
Communicative and Functional English(MANDATORY)	Common to all	1	2
Community Outreach Activity(OPTIONAL)	Subject Specific	1	1
Certificate Course(IKS –Indian Knowledge System)(MANDATORY)	Subject Specific ( offered to other departments)	1	2
Value Added Course(MANDATORY)	Subject Specific	1	2
Internship–I To be completed during II Semester Vacation(MANDATORY) Internship – II & III(OPTIONAL)	Subject Specific	3	3
Capacity Building for Enhancing Professional Skills(MANDATORY)	50% Common to all(Placement Training) 50% Subject Specific(Career Guidance Workshop by Respective departments)	1	2
<b>TOTAL</b>		<b>12</b>	<b>20</b>

\*The extra credit courses have been introduced in the OBE-CBCS Curriculum pattern to be implemented from 2024 onwards based on the recommendations of the apex bodies namely TANSICHE, UGC, Bharathidasan University (Parent University), NAAC in lieu to the National Education Policy.

\*\*Courses with Credit Transfer provision

**B.Sc. Mathematics**  
**(CBCS System)**  
**EXTRA CREDIT COURSE FOR SKILL DEVELOPMENT\***

SEM	COURSE	COURSE CODE	COURSE TITLE	HRS	CRD	INT/EXT	CIA	SE	TOT
I	<b>EXTRA CREDIT COURSES</b>		Communicative and Functional English offered by Department of English ( <b>MANDATORY</b> )	2	2	INT	25	75	100
III			Community outreach activity (II Semester vacation – <b>Report, Photo &amp; Feedback</b> ) ( <b>OPTIONAL</b> )	-	1	INT	-	-	100
III			<b>Internship – I</b> - (II Semester vacation) <b>Online/Offline - Certificate, Report &amp; Photo</b> ( <b>MANDATORY</b> )	-	1	INT	-	-	100
IV			Certificate Course (IKS) – <b>Offered to other Department (beyond class hours)</b> ( <b>MANDATORY</b> )	2	2	INT	25	75	100
IV			<b>Internship – II</b> (III Semester vacation) - <b>Online/Offline -Certificate, Report &amp; Photo</b> ( <b>OPTIONAL</b> )	-	1	INT	-	-	100
IV			<b>Office Automation</b> ( <b>MANDATORY</b> )	2	2	INT	25	75	100
V			Value Added Course – <b>Offered to the same department (beyond class hours)</b> ( <b>MANDATORY</b> )	2	2	INT	25	75	100
V			<b>Internship – III</b> (IV Semester vacation) – <b>Online/Offline - Certificate, Report &amp; Photo</b> ( <b>OPTIONAL</b> )	-	1	INT	-	-	100
V			<b>Web Designing</b> ( <b>MANDATORY</b> )	2	2	INT	25	75	100
V			Online – Course (MOOC/Swayam/NPTEL) – <b>Before V Semester</b> ( <b>OPTIONAL</b> )	-	2	INT	-	-	100
VI			Capacity Building for Enhancing Professional Skills – <b>Offered by the Department</b> ( <b>MANDATORY</b> )	2	2	INT	-	-	100
VI			<b>Internet Concepts</b> ( <b>MANDATORY</b> )	2	2	INT	25	75	100
				<b>TOTAL</b>		<b>20</b>			

**B.Sc. Mathematics**  
**(CBCS System)**

**MANDATORY EXTRA CREDIT COURSE FOR SKILL DEVELOPMENT\***

<b>SEM</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>HRS</b>	<b>CRD</b>	<b>INT/EXT</b>	<b>CIA</b>	<b>SE</b>	<b>TOT</b>
I		Communicative and Functional English offered by Department of English	2	2	INT	25	75	100
III		<b>Internship – I - (II Semester vacation) Online/Offline - Certificate, Report &amp; Photo</b>	-	1	INT	-	-	100
IV		Certificate Course (IKS) – <b>Offered to other Department (beyond class hours)</b>	2	2	INT	25	75	100
IV		<b>Office Automation</b>	2	2	INT	25	75	100
V		Value Added Course – <b>Offered to the same department (beyond class hours)</b>	2	2	INT	25	75	100
V		<b>Web Designing</b>	2	2	INT	25	75	100
VI		Capacity Building for Enhancing Professional Skills – <b>Offered by the Department</b>	2	2	INT	-	-	100
VI		<b>Internet Concepts</b>	2	2	INT	25	75	100
		<b>TOTAL NO OF COURSES        8</b>	<b>14</b>	<b>15</b>				<b>800</b>

**B.Sc. Mathematics**  
**(CBCS System)**  
**OPTIONAL EXTRA CREDIT COURSE FOR SKILL DEVELOPMENT\***

<b>SEM</b>	<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>HRS</b>	<b>CRD</b>	<b>INT/EXT</b>	<b>CIA</b>	<b>SE</b>	<b>TOT</b>
III		Community outreach activity (II Semester vacation – <b>Report, Photo &amp; Feedback</b> )	-	1	INT	-	-	100
IV		<b>Internship – II</b> (III Semester vacation) - <b>Online/Offline -Certificate, Report &amp; Photo</b>	-	1	INT	-	-	100
V		<b>Internship – III</b> (IV Semester vacation) – <b>Online/Offline - Certificate, Report &amp; Photo</b>	-	1	INT	-	-	100
V		Online – Course (MOOC/Swayam/NPTEL) – <b>Before V Semester</b>	-	2	INT	-	-	100
		<b>TOTAL NO OF COURSES</b>		<b>4</b>				<b>400</b>